PATENT

DOCKET NO.: CARP-0123/P035760US/HGH **Application No.:** 10/579,981

Office Action Dated: October 2, 2008

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

- 1. (currently amended) A An isolated transformed host cell comprising
 - a chromosomal gene which inhibits cell growth operably linked to a regulatory sequence; and
 - ii) a plasmid comprising an origin of replication encoding an antisense sequence which binds to mRNA transcribed from the regulatory sequence.

wherein the binding of the antisense sequence encoded by the origin of replication of the plasmid to mRNA transcribed from the regulatory sequence inhibits the action of the chromosomal gene, thereby permitting cell growth.

- (currently amended) A <u>An isolated</u> transformed host cell according to claim 1 wherein the plasmid comprises a cloning site for insertion of a gene of interest.
- (currently amended) A An isolated transformed host cell according to claim 2, wherein
 the plasmid further comprises a gene of interest.

4.-9. (canceled)

- 10. (currently amended) A <u>An isolated</u> transformed host cell according to claim 1, wherein the antisense sequence encoded by the plasmid is RNAI or a portion thereof and the regulatory sequence operatively linked to the chromosomal gene encodes RNAII or a portion thereof.
- 11. (currently amended) A An isolated transformed host cell according to claim 1, wherein the antisense sequence encoded by the plasmid is RNAII or a portion thereof and the regulatory sequence operatively linked to the chromosomal gene encodes RNAI or a portion thereof.

(canceled)

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13. (currently amended) A An isolated transformed host cell according to claim 1, wherein the cell is in culture in vitro

- (currently amended) A <u>An isolated</u> transformed host cell according to claim 1 which is a prokaryotic cell.
- (currently amended) A <u>An isolated</u> transformed host cell according to claim 14 which is a bacterial cell.
- (currently amended) A An isolated transformed host cell according to claim 15, wherein the cell is a gram negative bacterial cell.
- (currently amended) A An isolated transformed host cell according to claim 16, wherein the cell is an E. coli cell or a Salmonella cell.
- (withdrawn, currently amended) A An isolated transformed host cell according to claim
 wherein the cell is a gram positive bacterial cell.
- (withdrawn, currently amended) A An isolated transformed host cell according to claim
 wherein the cell is a Bacillus cell.
- (currently amended) A An isolated transformed host cell according to claim 15 which is an attenuated cell.
- (withdrawn, currently amended) A <u>An isolated</u> transformed host cell according to claim 1 wherein the cell is a eukaryotic cell.
- (withdrawn, currently amended) A An isolated transformed host cell according to claim
 wherein the cell is a fungi.
- (withdrawn, currently amended) A An isolated transformed host cell according to claim
 wherein the cell is a plant cell.

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24. (withdrawn, currently amended) A An isolated transformed host cell according to claim
21 wherein the cell is an animal cell

- (withdrawn, currently amended) A An isolated transformed host cell according to claim
 wherein the chromosomal gene is a toxin gene.
- (withdrawn, currently amended) A An isolated transformed host cell according to claim
 wherein the toxin gene is sacB.
- 27. (currently amended) A <u>An isolated</u> transformed host cell according to claim 1, wherein the chromosomal gene encodes a repressor protein that inhibits expression of a second chromosomal gene essential for cell growth.
- 28. (currently amended) A An isolated transformed host cell according to claim 27, wherein the second chromosomal gene is conditionally essential for cell growth.
- 29. (currently amended) A <u>An isolated</u> transformed host cell according to claim 27 wherein the chromosomal gene encodes the repressor *lacI* and the second chromosomal gene is operatively linked to a *lac* operator and promoter.
- (withdrawn, currently amended) A An isolated transformed host cell according to claim
 wherein the chromosomal gene is dapD or fabA.
- 31. (withdrawn, currently amended) A An isolated transformed host cell according to claim 1, wherein the chromosomal gene encodes an antisense sequence that inhibits expression of a second chromosomal gene essential for cell growth.
- 32. (withdrawn, currently amended) A An isolated transformed host cell according to claim 31, wherein the antisense sequence encoded by the chromosomal gene inhibits expression of the second chromosomal gene by binding to the chromosomal gene.

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33. (withdrawn, currently amended) A <u>An isolated</u> transformed host cell according to claim 31, wherein the antisense sequence encoded by the chromosomal gene inhibits expression of the second chromosomal gene by binding to mRNA transcribed from the second chromosomal gene.

- 34. (withdrawn, currently amended) A An isolated transformed host cell according to claim 31 wherein the second chromosomal gene is conditionally essential for cell growth.
- (withdrawn, currently amended) A An isolated transformed host cell according to claim
 , wherein the second chromosomal gene is dapD or fabA.
- 36. (currently amended) A An isolated transformed host cell according to claim 1 wherein the chromosomal gene operably linked to a regulatory sequence is under the control of a constitutive promoter.
- 37. (currently amended) A An isolated transformed host cell according claim 1 wherein the chromosomal gene operably linked to a regulatory sequence is under the control of an inducible promoter.
- 38. (withdrawn, currently amended) A method of maintaining a plasmid in a host cell in vitro comprising the step of culturing a <u>an isolated</u> transformed host cell according to claim 1 under conditions sufficient to permit said cell to grow.
- 39. (withdrawn, currently amended) A method of producing plasmid DNA comprising culturing a an isolated transformed host cell according to the method of claim 38 and isolating the plasmid DNA.
- 40. (withdrawn, currently amended) A method of producing a recombinant protein comprising culturing a an isolated transformed host cell comprising a plasmid encoding a protein of interest according to the method of claim 38 and isolating the protein from the cell.

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41. (currently amended) A pharmaceutical composition comprising a an isolated transformed

host cell according to claim 1 together with a pharmaceutically acceptable excipient, diluent or buffer

42.-43. (canceled)

44. (withdrawn, currently amended) A method of delivering a gene to a patient comprising

administering to the patient # an isolated transformed host cell according to claim 3.

45. (withdrawn, currently amended) A method of maintaining a plasmid in a recipient

organism comprising introducing a an isolated transformed host cell according to claim 1 into said organism, wherein said chromosomal gene in said transformed host cell is essential for cell

growth in vivo.

46.-71. (canceled)

72. (withdrawn, currently amended) A method of immunizing a patient against a disease

caused by a pathogen comprising administering a <u>an isolated</u> transformed host cell according to

claim 1 to the patient.

73. (canceled)

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